

WHAT IS CLAIMED IS

1. A fixed length line trimmer head for string trimmer machines using line segments of a predetermined length including in combination:

a central generally cylindrical hub having an upper end and a lower end, with the upper end thereof configured for attachment to a drive shaft of a string trimmer machine;

a circular flange attached adjacent the lower end of the central hub and extending outwardly therefrom, the circular flange having at least one trimmer line exit opening on the circumference thereof:

line guide means on the circular flange between the line exit opening and an opening on a surface of the flange; and

means for effecting frictional engagement between the line guide means and one or the other of the hub and a location on the circular flange offset from the line guide means.

1 2. A fixed length line trimmer head for string trimmer
2 machines using line segments of predetermined length including in
3 combination:

4 a central cylindrical hub configured for attachment to a
5 drive shaft of a string trimmer machine;

6 a circular flange attached to and extending outwardly
7 from the central hub, the flange having at least one trimmer line
8 exit opening on the circumference thereof;

9 line termination apertures on one or the other of the hub
10 and the flange offset from the trimmer line exit openings for
11 insertion of an end of a length of trimmer line therein; and

12 a line guide means on the flange located between at least
13 one line exit opening and the line termination apertures.

14 3. The trimmer head according to Claim 2 wherein the line
15 termination apertures comprise sets of apertures of different
16 diameters.

17 4. The trimmer head according to Claim 3 wherein the central
18 hub has a circular longitudinal axis and a offset shoulder thereon,
19 and the line termination apertures are located on the shoulder and
20 extend generally parallel to the longitudinal axis of the central
21 hub.
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1 5. The trimmer head according to Claim 3 wherein the at least
2 one trimmer line exit opening includes spaced exit openings located
3 on the circular flange, and the line termination apertures include
4 at least two line termination apertures of different sizes
5 associated with each of the line exit openings.

6 6. The trimmer head according to Claim 5 wherein the hub has
7 a longitudinal axis, further including at least two diametrically
8 opposed longitudinal flanges on the central hub extending generally
9 parallel to the longitudinal axis of the central hub and wherein
10 the line termination apertures are located in the longitudinal
11 flanges.

12 7. The trimmer head according to Claim 6 wherein the line
13 termination apertures extend through the longitudinal flanges.

14 8. The trimmer head according to Claim 1 wherein the line
15 termination apertures are formed in the circular flange at a
16 location offset from the line exit openings in the circular flange.

17 9. The trimmer head according to Claim 8 wherein the line
18 termination apertures are oriented substantially parallel to the
19 exit openings on the circumference of the circular flange.

1 10. The trimmer head according to Claim 2 wherein the at
2 least one trimmer line exit opening includes spaced exit openings
3 located on the circular flange, and the line termination apertures
4 include at least two line termination apertures of different sizes
5 associated with each of the line exit openings.

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7 11. The trimmer head according to Claim 2 wherein the central
8 hub has a circular longitudinal axis and a offset shoulder thereon,
9 and the line termination apertures are located on the shoulder and
10 extend generally parallel to the longitudinal axis of the central
11 hub.

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13 12. The trimmer head according to Claim 2 wherein the hub has
14 a longitudinal axis, further including at least two diametrically
15 opposed longitudinal flanges on the central hub extending generally
16 parallel to the longitudinal axis of the central hub and wherein
17 the line termination apertures are located in the longitudinal
18 flanges.

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20 13. The trimmer head according to Claim 12 wherein the line
21 termination apertures extend through the longitudinal flanges.

1 14. A fixed line trimmer head for string trimmer machines
2 using line segments of a predetermined length including in
3 combination:

4 a central cylindrical hub configured for attachment to a
5 drive shaft of a string trimmer machine;

6 a circular flange attached to and extending outwardly
7 from the central hub, the flange having trimmer line exit openings
8 angularly spaced about the circumference thereof;

9 means on the central hub for guiding a string trimmer
10 line from one of the exit openings on the circular flange to
11 another of the exit openings over a generally U-shaped path
12 designed to resist pulling of a line segment out of the line exit
13 openings on the circular flange.

14 15. The trimmer head according to Claim 14 wherein the means
15 for guiding the line on the central hub comprises a portion of the
16 periphery of the hub.

18 16. The trimmer head according to Claim 15 further including
19 at least one outwardly extending ear on the central hub with the
20 ear having an aperture therethrough extending substantially
21 parallel to the plane of the circular flange and located in a plane
22 offset from the plane of the circular flange for guiding a line
23 from an exit opening on one side of the circular flange through the
24 opening in the ear to the exit opening on the diametrically
25 opposite side of the circular flange to cause a line to assume a
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(Claim 16 continued)

generally U-shaped bight intermediate the exit openings on the circumference of the circular flange.

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